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EXAMINER

DINH, TIEN QUANG

ART UNIT

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 32

Application Number: 08/949,988
Filing Date: October 14, 1997
Appellant(s): YUNG ET AL.

Vijayalakshmi D. Duraiswamy
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/3/01.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

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(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-21 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

4,809,935	Drain	3/1989
4,776,540	Westerlund	10/1988

6,018,312	Haworth	1/2000
6,091,359	Geier	7/2000
6,104,911	Diekelman	8/2000
4,288,051	Goschel	9/1981
5,158,249	Uphoff	10/1992
5,507,454	Dulck	4/1996
5,738,309	Fowell	4/1998

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-21 are rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 29.

(11) Response to Argument

In response to the Applicant's argument that the Draim reference discloses a constellation of continuous global coverage, the Examiner respectfully disagrees. The Draim reference does not necessarily teaches continuous global coverage. As shown in figure 3, a vast percentage of the southern hemisphere is not covered by the three satellites constellation as clearly shown in figure 3. Figure 3 shows that the area not covered by the three satellites constellation includes the southern tip of South America, Antarctica, and the vast part of the Indian, Pacific, and Atlantic Ocean. The Applicant has also said in the Appeal Brief that "Draim also teaches the inclusion of a fourth

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satellite to provide continuous global coverage." The Examiner fully agrees with the applicant that indeed a fourth satellite would have a continuous global coverage.

However, a three satellites constellation, as shown in figure 3, does not have a continuous global coverage. The statement by the Applicant seems to strengthen the Examiner's position that Draim does not necessarily teaches a continuous global coverage. Further, it is believed that the Draim reference teaches maximizing coverage at predetermined geographical areas at local predetermined peak times since the area that it covers (in figure 3) is clearly the geographical areas at local predetermined peak times.

As for the applicant's argument on the Westerlund reference, the Examiner respectfully disagree. It is believed that one skilled in the art (especially those skilled in the art of aerospace/orbital mechanics) essentially knows that by changing the tilting of the trajectory of a satellite constellation, a different area of coverage would be in affect. Westerlund is used to further demonstrate that by tilting the trajectory of a satellite constellation, a different area would be covered. It would have been obvious to one skilled in the art at the time the invention was made to have tilted the constellation's trajectory of Draim as taught by Westerlund to cover a different area of the Earth. In this case, if one would like to cover the tip of South America, Antarctica, the Southern part of the Indian, Pacific, and Atlantic Ocean, one would certainly tilt the constellation of satellites (in figure 3) to cover these desired areas. The Examiner takes the teaching of Westerlund to clearly show that titling of a satellite constellation would cover a different area on the globe is well known. This would be a prime motivation to combine

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the teaching of titling the constellation of Draim so as to cover a different area on the globe. It is advised that those who are interested to see figure 7A, which shows a constellation of satellites when its trajectory is being tilted, a different area would be covered.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

**CHARLES T. JORDAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**

T. Dinh
Examiner
Art Unit 3644

TD
December 28, 2001

Conferees
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